

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1-1346-PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, Item 5 below.	
International application No. PCT/EP 02/05642	International filing date (day/month/year) 23/05/2002	(Earliest) Priority Date (day/month/year) 25/05/2001
Applicant BOEHRINGER INGELHEIM PHARMA KG		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the International search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

COMBINATION OF A DOPAMINE D2-RECEPTOR AGONIST AND TIOTROPIUM OR A DERIVATIVE THEREOF FOR TREATING OBSTRUCTIVE AIRWAYS

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/05642

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/46 A61K31/4745 A61K31/48 A61K31/538 A61P11/06
 A61P11/08 A61K9/72 //(A61K31/46, 31:4045), (A61K31/4745,
 31:46), (A61K31/48, 31:46), (A61K31/538, 31:46)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, MEDLINE, CHEM ABS Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 02 30390 A (BOEHRINGER INGELHEIM PHARMA ;BOECK GEORG (DE); WALZ MICHAEL (DE)) 18 April 2002 (2002-04-18) claims 8,9 page 6, line 36 -page 7, line 14 page 7, line 34 -page 8, line 1 --- -/--	1-4, 6-35



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search

14 November 2002

Date of mailing of the international search report

20/11/2002

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/05642

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BONNERT R V ET AL: "DUAL D2-RECEPTOR AND BETA2-ADRENOCEPTOR AGONISTS FOR THE TREATMENT OF AIRWAY DISEASES. 1. DISCOVERY AND BIOLOGICAL EVALUATION OF SOME 7-(2-AMINOETHYL)-4-HYDROXYBENZOTHAZOL-2(3H)-ONE ANALOGUES" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 41, no. 25, 1998, pages 4915-4917, XP000978960 ISSN: 0022-2623 page 4915, column 2, line 12 - line 27 ----	1-35
Y	WO 99 36095 A (ASTRA PHARMA PROD ;DIXON JOHN (GB); INCE FRANCIS (GB); ASTRA AB (S) 22 July 1999 (1999-07-22) claims 1,2 abstract ----	1-35
Y	BARNES P J: "Chronic obstructive pulmonary disease: new opportunities for drug development." TRENDS IN PHARMACOLOGICAL SCIENCES. ENGLAND OCT 1998, vol. 19, no. 10, October 1998 (1998-10), pages 415-423, XP004156947 ISSN: 0165-6147 page 415 -page 416, paragraph ANTICHOLINERGICS -----	1-35

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 02/05642

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0230390	A	18-04-2002	AU 1822002 A	22-04-2002
			AU 8993501 A	22-04-2002
			BR 0107304 A	13-08-2002
			WO 0230389 A1	18-04-2002
			WO 0230390 A2	18-04-2002
			NO 20022414 A	30-05-2002
			US 2002110529 A1	15-08-2002
			US 2002106332 A1	08-08-2002

WO 9936095	A	22-07-1999	AU 2081999 A	02-08-1999
			EP 1075278 A1	14-02-2001
			JP 2002509119 T	26-03-2002
			WO 9936095 A1	22-07-1999
			US 2002010197 A1	24-01-2002

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